

10. CAPE ANN TO BOSTON HARBOR, MASSACHUSETTS

(1) This chapter describes the Massachusetts coast along the northwestern shore of Massachusetts Bay from Cape Ann southward to but not including Boston Harbor. The harbors of Gloucester, Manchester, Beverly, Salem, Marblehead, Swampscott, and Lynn are discussed as are most of the islands and dangers off the entrances to these harbors.

(2) **COLREGS Demarcation Lines.**—The lines established for this part of the coast are described in **80.120**, and **80.125**, chapter 2.

(3) **Chart 13267.—Massachusetts Bay** is the body of water lying westward of a line connecting Cape Ann Light on Thacher Island with Race Point Light on the northwestern extremity of Cape Cod, about 38 miles south-southeastward. It includes Boston Harbor, described in chapter 11, and Cape Cod Bay, described in chapter 12. Between Cape Ann Light and Boston Harbor, 24 miles to the southwestward, the principal harbors are Gloucester, Beverly, Salem, Marblehead, and Lynn, all available to vessels of moderate draft. The coast is rocky and generally bold with numerous detached islands, rocks, and sunken dangers.

(4) **Charts 13281, 13274.—Gloucester Harbor** is one of the most important fishing ports in the United States and an important harbor of refuge. It is 5 miles southwestward of Emerson Point, the easternmost point of Cape Ann, 26 miles from Boston and 234 miles from New York. The entrance is marked on its eastern side by Eastern Point Light. There is an outer and inner harbor, the former having depths generally of 18 to 52 feet and the latter, depths of 15 to 24 feet.

(5) **Gloucester Inner Harbor** limits begin at a line between Black Rock Daybeacon 12 and **Fort Point**.

(6) **Gloucester** is a city of great historical interest, the first permanent settlement having been established in 1623. The city limits cover the greater part of Cape Ann and part of the mainland as far west as Magnolia Harbor. Its principal industries are directly or indirectly connected with the fishing or related industries in the processing, freezing, canning, or shipment of fish and lobsters.

(7) The principal import is seafood. Limited amounts of general cargo is the principal export.

(8) **Prominent features.—Eastern Point Light** (42°34.8'N., 70°39.9'W.), 57 feet above the water, is shown from a 36-foot white conical tower with a covered way to a dwelling; a fog signal is at the light.

(9) A breakwater extends 750 yards west-northwest from the shore near Eastern Point Light and is marked at its outer end by **Gloucester Breakwater Light** (42°34.9'N., 70°40.4'W.), 45 feet above the water and shown from a 37-foot white house and tower on a brown square skeleton framework structure; a fog signal is at the light.

(10) **Normans Woe**, on the west side at the entrance to Gloucester Harbor, is a rocky headland split by a deep cleft, known as **Rafes Chasm**, into which the sea enters during heavy weather. **Normans Woe Rock**, 0.3 mile northeastward of Normans Woe and over 0.1 mile offshore, is a rounded rocky islet 45 feet high, surrounded by extensive ledges. In December 1985, a sunken wreck was reported about 0.1 mile eastward of Normans Woe Rock in about 42°34'47"N., 70°41'30"W. A bell buoy is about 0.2 mile east-southeast of Normans Woe Rock. The stone building

and double tower of the John Hays Hammond Museum, about 0.3 mile northward of the rock, are conspicuous from seaward.

(11) A **025°–205° measured nautical mile** is on the west side of the entrance to Gloucester Harbor. The front marker of the southerly range is a white target painted on Normans Woe Rock and is sometimes difficult to distinguish from the guano. All other markers are white wooden tripods. The southerly rear range marker is on the bluff west-northwestward of the rock. The northerly range is near the north end of **Dolliver Neck**.

(12) **Tenpound Island Light** (42°36.1'N., 70°39.9'W.), 57 feet above the water is shown from a white conical tower on the west side of Tenpound Island off the entrance to Inner Harbor; a fog signal is at the light. The ruins of several piers are on the north side of the island. The island is owned by the city of Gloucester.

(13) **COLREGS Demarcation Lines.**—The lines established for Gloucester Harbor are described in **80.120**, chapter 2.

(14) **Channels.**—The entrance westward of the breakwater between Dog Bar and **Mussel Point** is about 0.6 mile wide. About 500 yards westward of Round Rock Shoal is an unmarked rocky ledge covered 23 feet. This leaves only a channel about 400 yards wide with depths of 38 to 47 feet into the outer harbor.

(15) **Dog Bar Channel** between the end of Dog Bar and the eastern edge of Round Rock Shoal is only about 150 yards wide with depths of 20 to 22 feet.

(16) During heavy southeasterly gales, the sea at times breaks nearly the whole distance across the entrance. Strangers should enter by the deepest channel westward of Round Rock Shoal, where there is reported to be a space known not to break.

(17) A dredged channel leads from the northeasterly part of Gloucester Harbor into Inner Harbor and connects with north and south access channels which lead on either side of the Gloucester State Fish Pier to the head of the harbor. Dredged access channels also lead from the Inner Harbor entrance channel into Harbor Cove and Smith Cove, on the northwestern and southeastern sides of Inner Harbor, respectively. In May 2000, the controlling depths were 18.5 feet (20.0 feet at midchannel) in the Inner Harbor entrance channel, thence 16.3 feet (19.2 feet at midchannel) in the south access channel; thence in 1997–April 1999, 15 feet (16 feet at midchannel) in the north access channel; 18 feet in the Harbor Cove entrance channel; thence 12 feet (15 feet at midchannel) in the Smith Cove entrance channel. The channels are marked by buoys.

(18) The southern entrance to **Blynman Canal** and Annisquam River is through Blynman Bridge at the head of Western Harbor. This is the inside route to Ipswich Bay on the north side of Cape Ann, described in chapter 9. The school tower 500 yards north-northwest of the bridge is prominent. A rock which uncovers 2 feet is close southward of the channel entrance.

(19) **Anchorage.**—The best anchorage in the outer harbor for vessels coming in for shelter or bound to Gloucester is **Southeast Harbor**, the cove in the eastern part of Gloucester Harbor northward of **Black Bess Point** and southward of Tenpound Island, known locally as **Pancake Ground**. This is the one most frequently used. It has good anchorage, soft mud and clay bottom in about 23 to 30 feet, and is also used by vessels taking shelter.

(20) In **Western Harbor**, the semicircular cove northwestward of Tenpound Island in the northern part of Gloucester Harbor, there is also good anchorage, soft mud and clay bottom in 24 to 30 feet. Give the shore a berth of 300 yards. There are no

wharves. The city of Gloucester maintains a parkway along the shore of Western Harbor to **Stage Head**. The Gloucester Fisherman statue faces the harbor from this parkway about 200 yards eastward of the entrance to Blynman Canal.

(21) A dredged anchorage, about 300 yards southwestward of the Gloucester State Fish Pier, is available in Inner Harbor. In 1997, a depth of 15 feet was available in the anchorage. The anchorage is partially marked by buoys. Mooring permits for the Inner Harbor are issued by the deputy harbormaster, who patrols the harbor in a police/fire boat; the patrol boat monitors VHF-FM channel 16 when underway.

(22) **Smith Cove**, in the southeast part of Inner Harbor, provides good anchorage for small craft in 6 to 15 feet, but is somewhat congested with moorings. **Harbor Cove**, on the northwest side of the entrance to Inner Harbor, has depths of 17 feet in the dredged area with lesser depths along the edges. **Gloucester Coast Guard Station** is on its northeast side. A dredged anchorage is on the east side of the entrance to Harbor Cove; in 1997, a depth of 14 feet was available.

(23) **Dangers**.—Gloucester Harbor and approaches have very broken ground and many rocks and ledges, some of them unmarked; careful navigation is necessary, especially in thick weather.

(24) The principal dangers are marked for vessels of 24-foot draft or less to an anchorage in Southeast Harbor, and for 18-foot draft or less into the inner harbor. Strangers are advised not to bring in greater drafts without a pilot.

(25) **Dog Bar**, on which the breakwater is built, extends 100 yards westward of the end of the breakwater where it is marked by a buoy.

(26) **Round Rock Shoal**, a rocky ledge about 400 yards in extent northeast to southwest and covered 13 feet, extends from 0.15 to 0.3 mile westward of the breakwater light. It is marked on its northeastern edge by a buoy and on its southwestern edge by a lighted buoy.

(27) **Green Rock**, 175 yards eastward of Tenpound Island, is marked by a daybeacon. The passage between Tenpound Island and Rocky Neck is shoal and foul, and should not be attempted, especially by strangers.

(28) **Tenpound Island Ledge and Mayflower Ledge**, on the eastern side of the approaches to the Inner Harbor, are covered 18 and 17 feet, respectively; a buoy is off the northwest side of Mayflower Ledge. Two shoal spots, covered 16 and 18 feet and marked by a buoy, are about 220 yards southwestward of Tenpound Ledge. There are also unmarked 18-foot and 19-foot spots about 230 yards north-northwestward of Tenpound Island Light. **Prairie Ledge**, on the western side of the approach, is covered 4 feet and marked on its eastern end by a lighted buoy. **Babson Ledge**, 500 yards north of Tenpound Island, is covered 12 feet and marked on its south side by a buoy.

(29) **Rocky Neck**, a high and partly wooded island on the east side at the entrance to Inner Harbor, is connected with the easterly shore by a causeway. **Black Rock**, about 100 yards off the western end of Rocky Neck, is marked by a daybeacon.

(30) **Tides and Currents**.—The mean range of tide is 8.7 feet. The tidal currents in Gloucester Harbor do not greatly interfere with the movements of vessels, as they set directly in and out of the harbor and their velocity is comparatively small. However, the tidal currents in the entrance to Blynman Canal average over 3 knots at strength and greater velocities to 10 knots were reported in 1992 in the vicinity of Blynman Bridge (State Route 127).

Mariners are advised to use caution when approaching the bridge, especially during maximum flood and ebb.

(31) **Ice** seldom extends outside Tenpound Island at the entrance to Inner Harbor. The movement of boats generally keeps Inner Harbor open.

(32) **Pilotage, Gloucester**.—Pilotage is compulsory for all foreign originating vessels over 350 gross tons and/or 7-foot draft and for U.S. vessels over 10,000 gross tons.

(33) Pilotage service for Gloucester is provided by Eastern Point Pilots, P.O. Box 705, Rowley, MA 01969, telephone 508-948-3900, 1-800-835-8927. Office is manned 24-hours; pilots are available 24-hours. Pilot operations are based out of Gloucester. Eastern Point Pilots are State and Federal pilots for the ports of Massachusetts north of Nahant to the New Hampshire border. This includes the ports of Marblehead, Salem, Beverly, Manchester, Rockport and Newburyport. Pilotage is compulsory for vessels defined above entering these ports.

(34) The 50-foot pilot boat, ASSISTANT, has a red hull and white superstructure. She has 600 horsepower and twin-screws; is fendered and arranged for ship docking assist work on vessels up to 6,000 gross tons.

(35) Pilot boarding station is in 42°04'N., 70°40'W., about 1.5 miles S of Eastern Point Light. About 1 hour before vessel arrival the pilot boat monitors VHF-FM channel 16. Working channels are 12 or 06. Arrival notice is requested 24 hours ahead of ETA with an update at minus 8 hours. For departure sailings, a 4-hour minimum notice is requested. Vessels are requested to provide a leeward side for boarding with secure pilot ladder with a 1 meter (about 3 feet) above the water clearance. Daylight restrictions apply for vessels in the port of Salem when the combined LOA and maximum beam exceeds 750 feet. Tide restrictions may apply to loaded vessels due to ranges in tide fluctuation and weather.

(36) **Towage**.—The pilot boat can assist docking vessels up to 6,000 gross tons; for larger vessels tugs are available from Boston.

(37) **Quarantine, customs, immigration, and agricultural quarantine**.—(See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(38) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(39) Gloucester is a **customs port of entry**.

(40) **Coast Guard**.—The Gloucester Coast Guard Station is on the east side of Harbor Cove at Gloucester.

(41) **Harbor regulations**.—The Chief of Police is the **harbormaster**. The deputy harbormaster patrols the harbor in the police and fire boat, supervises the moorings in the anchorages, and issues permits for them; the patrol boat monitors VHF-FM channel 16 when underway. A **speed limit** of 5 miles per hour is enforced in Inner Harbor.

(42) **Wharves**.—There are many wharves along the Inner Harbor at Gloucester. Most of these facilities are used by the fishing industry. A description of several of the principal wharves follows.

(43) **Gloucester State Fish Pier**, at the head of Inner Harbor, has 1,000 feet of berthing space along its north side with reported depths of 24 feet alongside. Several piers with shoal depths alongside extend from the south side of the pier. The State Fish Pier is used to tranship and process seafood. Water is available, and diesel fuel can be obtained by lighter.

(44) The Quincy Market Cold Storage and Warehouse Company operates three wharves at Gloucester. The wharves are used to unload imported frozen seafood products. Cold storage facilities with a combined capacity of 4 million cubic feet are available. Mobile cranes and forklifts are available, and diesel fuel can be obtained by lighter. A description of the wharves follows.

(45) **Rogers Street Wharf** (42°36'45"N., 70°39'28"W.), on the north side of Inner Harbor, has a 300-foot face with depths of 25 feet reported alongside.

(46) **Rowe Square Wharf**, about 100 yards northeastward of the Rogers Street Wharf, has a 450-foot face with depths of 22 feet reported alongside.

(47) **East Main Street Wharf**, on the south side of Inner Harbor and on the north side of the entrance to Smith Cove, has a 360-foot face with depths of 21 feet reported alongside.

(48) **Supplies.**—Fuel oil is not available in bunker quantities, but diesel fuel can be had as desired from tank trucks and lighters. Marine and most other supplies are obtainable in town. Water is available at most of the wharves.

(49) **Repairs.**—Gloucester has ship repair plants on Rocky Neck and on the northwest side of the harbor. The two plants have machine and other shops, and can carry out all repairs to wood and steel vessels. The shipyard pier on Rocky Neck is 270 feet long with 15 to 16 feet reported alongside. The yard has a 10-ton crane. The largest marine railway can haul out craft up to 145 feet in length and up to 600 tons in weight. Radio and electronic repairs can be made.

(50) Boston is the nearest port where large vessels can be drydocked for extensive repairs to hull and machinery.

(51) **Small-craft facilities.**—A town float landing, with a reported 2 feet alongside, is at the head of Harbor Cove. Gloucester has many small-craft facilities along the waterfront. Marine railways up to 50 feet and several 20-ton mobile hoists are available. (See the small-craft facilities tabulation on chart 13274 for services and supplies available.)

(52) Party fishing boats operate from several points in the harbor during the summer, and charter boats, rowboats, and outboards can be hired.

(53) Eastern Point Yacht Club is on the north side of the entrance to the cove at the inner end of Gloucester Breakwater. There is a depth of 8 feet at its float landing, to which water is piped. The club maintains guest moorings and restrooms, showers, and dining room, and provides certain services for visiting members of yacht clubs.

(54) **Communications.**—Gloucester has rail and highway connections, and taxi and bus service. Schools, churches, banks, restaurants, lodging, library, and a hospital are in the city.

(55) **Charts 13279, 13274.**—**Magnolia Harbor** is a cove about 1.5 miles westward of the entrance to Gloucester Harbor and just north of **Kettle Island**. The summer resort of **Magnolia** is conspicuous on the eastern side. It has a public pier and float with 3 feet reported alongside. A rock which uncovers is just southward of the outer end of this pier, and the partial submerged ruins of two piers are about 150 yards farther southward. The harbor, used by many small craft, does not have very good holding ground and is exposed to southerly weather.

(56) There are no facilities at the public pier, but gasoline can be obtained in cans from garages at the head of the harbor. Magnolia has hotels, restaurants, markets, and stores, and provisions and marine supplies can be obtained.

(57) **Prominent features** are the large summer homes on **Magnolia Point**, an old wartime white concrete observation tower on **Coolidge Point**, and a large pavilion and several bathhouses on the beach at the head of the harbor. The edges and head of the harbor are shoal and foul, and none of the dangers are marked. The harbor at best is temporary anchorage for small craft in foul weather or offshore winds.

(58) **Kettle Cove**, west of Magnolia Harbor, is shoal and foul at the head. There is one private landing on the east side of the entrance, but no facilities. Large private homes on Coolidge Point and Crow Island are conspicuous. There are several rocks awash in the entrance to the cove.

(59) **Charts 13275, 13274.**—Off the shore eastward of Manchester Harbor entrance, between Gloucester entrance and House Island, are many islands, rocks, and ledges extending about 0.8 mile offshore. The farthest outlying ones, named in order from eastward are, 34 feet high and bare; **Paddock Rock**, covered 13 feet; **Boohoo Ledge**, covered 1 foot; **Salt Rock**, showing at high water; **Pickett Ledge**, part of which uncovers 3 feet; **Gales Ledge**, covered 5 feet; a ledge, covered 17 feet and marked by a buoy, about 350 yards south of Gales Ledge; and **Pilgrim Ledge**, covered 18 feet. Of the several coves, only Manchester Harbor is of interest to navigation.

(60) The shoreline of this section of the coast is lined with summer homes, many of which are large and conspicuous. The beach at **Eagle Head** is conspicuous.

(61) **Manchester Harbor**, about 5 miles west-southwest of Gloucester Harbor, is an arm of **Manchester Bay** extending in a northeasterly direction for 1 mile west of Gales Point to the town of **Manchester**. The entrance to Manchester Bay is northward of Bakers Island Light, between **House Island**, partly wooded, on the east, and **Great Misery Island** on the west. The ruins of two stone houses, one in the center and another on the west end, are on Great Misery Island.

(62) Manchester Harbor is principally a yachting center, with only a small amount of local commercial fishing. The harbor above **Proctor Point** is practically landlocked and secure in all weather.

(63) **Prominent features.**—Conspicuous objects include a white square observation tower on Gales Point, a large standpipe on **Moses Hill** north of the town, the bascule span of the railroad bridge, and the fishing pavilion at the end of the town wharf next to the yacht club at **Tucks Point**.

(64) **Channels.**—The approach channel to Manchester Bay from the eastward, between Whaleback and House Island, is clear and about 250 yards wide; the approach from southward, westward of Whaleback, is 500 yards wide.

(65) **Manchester Channel**, privately dredged and marked by buoys, leads from Manchester Bay to an anchorage basin at the head of Manchester Harbor; dredged anchorage basins are on either side of the channel about 300 yards northeast of Proctor Point. In 1969, the channel had a controlling depth of 8 feet; lesser depths are in the approach. In June 1981, shoaling to an unknown extent was reported in about 42°33'35"N., 70°47'12"W. Depths of 7 to 11 feet were available in the anchorage basin at the head of the harbor; in January 1981, the anchorage basins northeast of Proctor Point had reported depths of 7 feet. The Boston and Maine railroad bridge, about 1 mile above the entrance and just above the anchorage basin, has a 48-foot bascule span with a clearance of 6 feet. (See 117.1 through 117.59 and 117.603,

chapter 2, for drawbridge regulations.) A mooring basin with depths of about 7 feet is above the bridge.

(66) **Anchorage.**—By local regulations, vessels over 45 feet in length must anchor in Manchester Bay. The anchorage is northward of a line between Great Misery and House Islands as far as Manchester Channel Buoy 5. Those desiring to anchor only overnight, or from head winds, may find fair holding ground and good shelter except in southerly gales.

(67) The anchorage basins in Manchester Harbor are restricted to craft not over 45 feet in length. This regulation is strictly enforced.

(68) **Dangers.**—There is a bad ledge locally known as **Bow Bell**, with a rock awash on it, on the east side of the channel opposite the yacht club and public landing on Tucks Point, just above Proctor Point. A buoy marks the northwestern edge of the ledge. It is usually covered, and the only indication of it is a hole, or clear spot, amidst the craft moored or anchored in the vicinity. Care should be taken to avoid anchoring on the ledge.

(69) **Whaleback**, a dangerous ledge in the entrance to Manchester Bay, is about 400 yards long east and west, and 200 yards wide. Near the middle of its northern side is a rock awash at low water, marked by a daybeacon.

(70) **Sauli Rock**, which uncovers 9 feet, is 300 to 400 yards eastward of the northeast end of Great Misery Island, and is marked by a daybeacon.

(71) **White Ledge**, awash at low water, is 300 yards northwestward of House Island and is marked by a buoy on its west side. **Halftide Rocks**, which uncover, are 250 yards northward of White Ledge, and are marked by a buoy off the west side.

(72) **Chubb Islet**, bare and rocky, is 300 yards from the north shore of Manchester Bay and should be given a berth of more than 200 yards.

(73) The mean range of **tide** is about 8.8 feet.

(74) **Harbor regulations.**—In addition to the local regulations restricting the size of craft using the anchorage basins in Manchester Harbor, a **speed limit** of 5 miles per hour is enforced within the harbor.

(75) The **harbormaster** and deputies supervise the moorings and on application will usually find a vacant one for a visitor or advise where best to anchor. The yacht yards maintain guest moorings.

(76) **Wharves.**—A town pier and float landing, used by commercial lobstermen, are on the east side of the harbor, about 0.5 mile above Proctor Point; depths of 6 feet are reported at the face of the pier and 3 feet at the float; water and electricity are available.

(77) **Small-craft facilities.**—There are commercial and private float landings in the harbor. Four public landings and two small-craft launching ramps are available; depths of 5 to 10 feet are reported alongside the landings.

(78) Two yacht yards with marine railways with capacities up to 70 feet or 80 tons are on the west side of the harbor. Hull, engine, electrical, and electronic repairs can be made; a machine shop is available. The yard can provide gasoline, diesel fuel, water, ice, provisions, marine supplies, and dry covered or open winter storage; lifts up to 35 tons are also available. An outboard marina is on the west side of the harbor just above the bridge. The Manchester Yacht Club, at Tucks Point, has depths of 10 feet alongside its floats; water is available.

(79) Manchester has rail, bus, and taxi services.

(80) **Charts 13275, 13276, 13274.**—**Salem Harbor, Beverly Harbor, and Marblehead Harbor**, each of which in turn will be described in detail, form a large irregular indentation in the shore of Massachusetts Bay, 11 miles southwestward of Cape Ann and 12 miles northeastward of Boston Harbor entrance. Gales Point is the northern end and Marblehead Neck the southern point at the entrance to this large indentation, which includes within its limits the harbors of Manchester, Beverly, Salem, and Marblehead, the distance between the two points being 4 miles. This wide space is studded with islands, bare rocks, and sunken ledges, through which are several channels leading into the harbors.

(81) Salem has some commercial shipping with the importation of petroleum products. Marblehead is principally a yachting center.

(82) **Prominent features.**—The most conspicuous landmarks approaching the harbor are Bakers Island, Great Misery Island, and Childrens Island, and Marblehead Neck; a white square observation tower 90 feet high on Gales Point; a large standpipe on Moses Hill back of Manchester Harbor; the church spires in Beverly; the large powerplant with five stacks on Salem Neck; a radio tower near Naugus Head; the red brick tower of Abbott Hall and two standpipes, one with conical top in Marblehead; and the light, large mansions and homes on Marblehead Neck. Two large mansions on the estate along the north shore westward of Manchester Harbor also stand out. **Bowditch Ledge Daybeacon**, about 1.9 miles southwest of Gales Point, is 30 feet high with red and white diamond-shaped daymark on a conical granite monument and is readily discernible to anyone approaching the harbor.

(83) **Bakers Island Light** (42°32.2'N., 70°47.2'W.), 111 feet above the water, is shown from a white conical tower on the north end of Bakers Island; a fog signal is at the light. Many summer homes are on the island, and there is a ferry landing on the west side.

(84) **Marblehead Light** (42°30.3'N., 70°50.0'W.), 130 feet above the water, is shown from a 105-foot brown square skeleton tower with black top on the northern extremity of **Marblehead Neck**, a high, rocky promontory connected with the mainland by a sandbar and causeway.

(85) **Marblehead Rock**, 500 yards east-southeast of the northern end of Marblehead Neck, is a high bare rock.

(86) **Halfway Rock**, 1.7 miles south-southeast of Bakers Island, about 60 feet high and resembling a sugarloaf, has deep water around it. It is one of the most distinctive marks in the approach to the harbor.

(87) **North Gooseberry Island and South Gooseberry Island** are rocky islets on the extensive ledges southward of Bakers Island. **Dry Breakers**, the southerly part of the ledges, show at high water as a low bare ledge. An unmarked 13-foot spot is about 0.3 mile southwestward of South Gooseberry Island.

(88) **Childrens Island**, about 0.8 mile northeastward of Marblehead Neck, is privately owned, bare, and more than 0.3 mile long. The island has several houses toward its center and is used by the Marblehead YMCA as a summer day camp. There is a pier and float landing on the southwest side. Extensive ledges, bare and submerged, surround the island.

(89) **Eagle Island**, 0.7 mile north-northeastward of the north end of Cat Island, is small, grassy, and rocky.

(90) **Coney Island**, northward of Marblehead, is a low grassy islet.

(91) **COLREGS Demarcation Lines.**—The lines established for Salem, Beverly, and Marblehead Harbors are described in **80.120**, chapter 2.

(92) **Channels.**—Three main channels leading through the islands and rocks at the entrance are known as Salem Channel, Childrens Island Channel, and Marblehead Channel. Several other channels of less importance are used only by local boats. Most of the dangers adjacent to, or on the channel edges, are marked.

(93) **Salem Channel**, the deep-draft and most northerly channel, leads westward between Bakers and Great Misery Islands and through **Salem Sound** for about 3 miles, thence southwestward through a dredged section to a turning basin at the Salem Terminal Wharf on the west side of Salem Harbor. The entrance is marked by **Hospital Point Lighted Range** on bearing **276°16'**. Several buoyed dangers, described later under dangers are close to the sailing line. In 1997, the dredged section of Salem Channel had a controlling depth of 26 feet (29 feet at midchannel), thence 27 feet in the turning basin. Salem Channel is well marked.

(94) **Childrens Island Channel**, the middle one, has its entrance near Halfway Rock. It leads in a northwesterly direction between Childrens Island on the west and Satan Rock, Brimbles, and Eagle Island on the east. The least depth in Childrens Island Channel, about 26 feet, is between Eagle Island and Childrens Island.

(95) **Eagle Island Channel**, deep, clear, sheltered, and buoyed, leads from Salem Channel in a southwesterly direction between Hardy Rocks and Eagle Island on the northwest and Bakers Island, Pope Head Shoal, and Brimbles on the southeast. It is used by most craft bound to Marblehead Harbor from the northeastward.

(96) **Marblehead Channel**, the southwesterly one, leads in a northwesterly direction between Childrens Island and Marblehead Rock, thence northeasterly between Chappel Ledge and Childrens Island, thence northerly between Coney Ledge and Eagle Bar to Salem Sound. Dangers of less than 18 feet in Marblehead Channel are marked except for a 17-foot spot in about 42°29'40"N., 70°49'12"W.

(97) **South Channel** leads westerly along the northern shore of the peninsula between Marblehead and Salem Harbors. The channel, fringed by rocks and ledges, is less than 100 yards wide in its narrowest part and is not recommended for strangers drawing more than 10 feet.

(98) **Anchorage.**—Special anchorages are in Salem, Beverly, and Marblehead Harbors, and in Bass River. (See **110.1**, **110.25**, and **110.26**, chapter 2, for limits and regulations.)

(99) **Dangers.**—The approaches to Salem, Beverly, and Marblehead Harbors have very broken ground, and all of the channels lead between islands and rocks, bare and submerged. Caution is necessary at all times. Strangers should not attempt to enter or leave in thick weather.

(100) An extensive area of rocky patches and reefs, marked by buoys on its northeasterly, easterly, and southerly sides, extends about 2 miles southeastward of Bakers Island, ending with **Newcomb Ledge** which is covered 18 feet. A lighted whistle buoy is about 0.7 mile east-southeastward of the ledge. In this area are **Searle Rock**, **Middle Breakers**, **Southeast Breakers**, **Inner Breakers**, and **Davis Ledge**, all unmarked. Middle and Inner Breakers are partly bare at low water, and all break in heavy weather.

(101) **Hardy Shoal**, of which **Hardy Rocks** uncovers 7 feet and **Rising States Ledge**, covered 8 feet, are a part, extends from 0.6 to 0.8 mile westward of Bakers Island Light. The shoal is marked on its eastern side by a daybeacon.

(102) **Bowditch Ledge**, 1.2 miles west-northwestward of Bakers Island Light and 300 yards southward of Salem Channel, is marked by a daybeacon 30 feet high with red and white diamond-shaped daymark on a conical granite monument; the daybeacon is very conspicuous when approaching the harbor. The extension of the ledge northeastward is marked by a lighted buoy. **House Ledge**, covered 10 feet, and two ledges, covered 13 and 15 feet, all unmarked, are 0.4 mile eastward, 0.1 mile eastward, and 0.2 mile southeastward of Bowditch Ledge, respectively. **Powers Rock**, covered 17 feet and marked by a lighted bell buoy, is on the northern end of Bakers Island Shoals. These dangers are all south of the Salem Channel range line.

(103) North of Salem Channel, a ledge covered 12 feet and marked by a buoy extends southwestward from Little Misery Island. **Misery Ledge**, covered 17 feet and unmarked, is about 0.5 mile westward of Little Misery Island. **John Ledge**, covered 12 feet and about 0.1 mile westward of Misery Ledge, is marked close to the southward by a lighted buoy.

(104) **Great Haste** is a bare rock surrounded by ledges on the south side of Salem Channel, 2.4 miles westward of Bakers Island. **Little Haste**, close northwestward of Great Haste, is awash at low water and marked by a daybeacon. A 17-foot spot on the northwest end of **Haste Shoal**, about 650 yards north-northwest of the daybeacon, is marked on the north side by a lighted buoy.

(105) **Pope Head** (42°31.7'N., 70°47.8'W.), 300 yards northwestward of North Gooseberry, is a rugged, bare rock surrounded by ledges to a distance of 150 yards. A buoy marks **Pope Head Shoal**, the western extremity of the ledges around the islet.

(106) **Satan Rock**, 0.5 mile east-southeastward of Childrens Island, is a small bare rock marked by a daybeacon. The rock should be given a berth of over 200 yards.

(107) **Brimbles** is a rock awash at low water 0.3 mile south-southeastward of Eagle Island. It is marked by a red and white diamond-shaped daymark on an iron spindle. The daybeacon should be given a berth of over 200 yards.

(108) **Eagle Bar**, an extensive foul ledge and shoal area extending from Eagle Island to the northward, eastward, and westward and terminating with **Cutthroat Shoal**, covered 6 feet, on the northeast and **Midchannel Rock** covered 8 feet, on the southwest is marked on its eastern, southern, and western extremities by buoys.

(109) **Grays Rock**, 0.7 mile northwestward of Childrens Island, is 10 feet high. **Chappel Ledge**, covered 14 feet, about 350 yards eastward of Grays Rock, is marked to the eastward by a lighted buoy. **Cney Ledge**, an extensive ledge extending southeastward from Coney Island, is marked at its easterly end by a buoy.

(110) Islands and rocks, sunken and bare, extend 2 miles southward and southwestward from the south end of Marblehead Neck. Some of these dangers are marked by buoys, and the channels between them are used by local boats, but the area should be avoided by strangers. A lighted bell buoy marks **Outer Breakers**, covered 8 feet, the southeastern end of the broken ground.

(111) Dangers showing above water are **Great Pig Rocks**, bare at high water; **Southwest Breakers**, awash at low water and marked to the south by buoys; **Sammy Rock**, awash at low water and marked by a buoy; **Ram Islet**, high, rocky, and grassy; **Little**

Pig Rocks, awash at high water; **Roaring Bull**, bare at low water and marked by a daybeacon; and **Tinkers Island**, marked by several houses.

(112) A bar with little depth connects Tinkers Island with **Flying Point**, the southern end of Marblehead Neck.

(113) **Tom Moore Rock**, at the eastern end of a reef extending 500 yards eastward from the middle of Marblehead Neck, uncovers 6 feet and is marked by a daybeacon.

(114) No attempt has been made to describe all of the dangers, shoals, rocks, and ledges, as all those known are charted. Most of those in or near the fairways, or near the channel edges, are marked. The chart should be the guide, and due caution exercised. Important dangers within the limits of the three harbors will be described where necessary under the description of each individual harbor and its facilities.

(115) **Tides and currents.**—The mean range of tide is 9.0 feet at Beverly, 8.8 feet at Salem, and 9.1 feet at Marblehead. The tidal current in Salem and Marblehead Harbors has little velocity. In Beverly Harbor it has considerable velocity and sets across the channel in places. During the first half of the ebb the current sets across the shoal extending northeastward from Monument Bar.

(116) **Ice.**—The head of Salem Harbor on the flats usually is closed by ice every winter during January and February, but the formations rarely extend beyond the coal pier except in unusually severe winters. Northerly and northwesterly winds are most favorable to local formation in Salem Harbor.

(117) Winds from southward and westward, during light formation, have a tendency to carry the ice off to sea, while those from eastward usually break up the formation both in the harbor and its approaches.

(118) Ice rarely obstructs Marblehead Harbor to such an extent as to hinder navigation. Fishermen have made it a refuge when it was impossible to get into Gloucester, Salem, or Lynn Harbors. The formation of ice in Marblehead is entirely local, and it remains only a short time.

(119) **Pilotage, Salem Harbor, Beverley Harbor and Marblehead Harbor.**—Pilotage is compulsory for all foreign vessels and for U.S. vessels under register in the foreign trade which draw over 7 feet. Pilotage is optional for coastwise vessels who have on board a pilot licensed by the Federal government, but most deep-draft vessels take a pilot. The pilot usually boards in the vicinity of Eastern Point Lighted Whistle Buoy 2 (42°34.2'N., 70°39.8'W.). See Pilotage, Gloucester, earlier this chapter, indexed as such, for additional information.

(120) **Towage.**—Tug assistance is usually needed for deep-draft vessels. The nearest tugs are based at Boston.

(121) **Quarantine, customs, immigration, and agricultural quarantine.**—(See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(122) **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(123) Salem is the **customs port of entry** for Manchester, Salem, Beverly, Danversport, Marblehead, Peabody, and Lynn.

(124) **Harbor regulations.**—Moorings in the three harbors are under supervision of their respective harbor masters. A **speed limit** of 5 miles per hour is enforced within the limits of the harbors by the harbor masters and by police patrol boats.

(125) **Wharves.**—An oil storage terminal is in operation at Salem Terminal. Other wharves are in ruins or in various stages of disrepair and disuse. Several fish wharves in Salem are in operation.

(126) **Supplies.**—Fuel, water, provisions, ice, and marine supplies can be obtained at the ports.

(127) **Repairs.**—There are machine shops at Beverly and Salem that can carry out repairs. There are no drydocks; the nearest is at Boston. There are numerous yacht and boatyards which do repairs, haul out, and store. The largest of the marine railways in the harbors, located at Salem, can haul out craft up to 100 feet in length. Dry covered and open winter storage is available.

(128) **Chart 13276.**—**Beverly Harbor** is north of Salem Neck at the western end of Salem Sound and is formed by the confluence of Danvers River, Bass River, and North River. It forms the approach to the city of Beverly, a manufacturing and resort city on the north side of the harbor just inside the entrance.

(129) **Channels.**—**Beverly Channel**, with a midchannel controlling depth of 19 feet in April 1986, leads from Salem Sound to **Tuck Point** and the marinas on the north side below the highway bridge. The channel is buoyed, and most of the dangers are marked. Monument Bar and Lobster Rocks, both on the south side of the channel, are marked by daybeacons.

(130) An unmarked channel, known as **Rams Horn Channel**, is entered just westward of Monument Bar Daybeacon. The channel leads southward from Beverly Channel to an anchorage area and **Collins Cove**. Shoaling of unknown extent has been reported just inside the channel entrance. Collins Cove is mostly bare and seldom used. **Rams Horn Rock**, marked by a daybeacon, is on the southeast side of the channel. An overhead power cable across Collins Cove, about 0.2 mile above the entrance, has a clearance of 50 feet.

(131) **Anchorage.**—Special anchorages are in Beverly Harbor. These anchorages are on **Monument Bar**, north of Salem Neck, in Collins Cove, in the southwestern part of the harbor, and in **Beverly Cove** and **Mackerel Cove**, in the northern part of the harbor. (See 110.1, and 110.25(a), (d), and (e), chapter 2, for limits and regulations.) A **pipeline area** extends from Tuck Point to Salem Neck; care should be taken to avoid anchoring in this area.

(132) The harbor is patrolled, and a **speed limit** of 5 miles per hour is enforced.

(133) The **harbormaster** has an office at the town pier just east of the State Route 1A bridge.

(134) **Pilotage, Beverly.**—For Pilotage at Beverly and vicinity see Pilotage, Gloucester, indexed as such, this chapter.

(135) **Small-craft facilities.**—Jubilee Yacht Club at Tuck Point has 5 to 15 feet reported alongside its float landing. Water, some moorings, and a 15-ton mobile lift are available. A small-craft launching ramp is on Tuck Point.

(136) Several marinas with depths of 10 to 20 feet alongside their floats are on the north bank east of the highway bridge. These facilities can provide gasoline, diesel fuel, water, ice, marine supplies, provisions, and guest moorings. Mobile hoists up to 35 tons can handle craft up to 55 feet in length for hull or engine repairs or dry open or covered winter storage; electronic repairs can be made.

(137) State Route 1A highway bridge crossing the mouth of Danvers River from Beverly to Salem has a fixed span with a clearance of 49 feet. The Boston and Maine railroad bridge just west of the State Route 1A highway bridge has a swing span with a channel width of 40 feet and a minimum clearance of 3 feet. (See 117.1 through 117.59 and 117.595, chapter 2, for drawbridge regulations.) The bridgetender for the railroad bridge

monitors VHF-FM channel 16 and works on channel 6. The call sign of the railroad bridge is WRD-626. An overhead power cable on the east side of the railroad bridge has a clearance of 85 feet.

(138) **Chart 13275.—Danvers River**, the continuation of Beverly Harbor northwestward, has a depth of about 7 feet for 2 miles above Beverly to the town of **Danversport**. The channel, buoyed for about 1.5 miles to the mouth of Waters River, is narrow and leads between flats which uncover at low water. Kernwood Avenue highway bridge crossing the river about 0.5 mile west of the railroad bridge has a swing span with a clearance of 8 feet. (See **117.1 through 117.59 and 117.595**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 16 and works on channel 6; call sign WRD-625. In 1994, a fixed highway bridge with a design clearance of 48 feet was under construction immediately westward of the bascule bridge. A marina with a pier and float landing is on the south bank of the river just east of the highway bridge; depths of 6 to 7 feet are alongside the floats. A small-craft launching ramp and water are available.

(139) State Route 35 highway bridge at Danversport has a fixed span and is the head of navigation on **Waters River**, which is shoal above the bridge.

(140) A marina with depths of 10 feet reported alongside its floats is on the north bank of the river eastward of State Route 35 highway bridge. The marine railway at the marina can handle craft up to 45 feet in length for hull and engine repairs or open or covered storage. Gasoline, diesel fuel, ice, provisions, marine supplies, overnight berthing with electricity, and most other services are available.

(141) **Crane River** empties into the west side of Danvers River, about 0.3 mile above the entrance to Waters River. A privately dredged channel leads from the entrance to a mooring basin and public marina at the head. In 1984, the reported midchannel controlling depth in the channel was 6 feet to the boat basin with 4½ feet available in the basin.

(142) **Porter River**, a northwesterly tributary of the Danvers River, has its entrance just eastward of the entrance to Crane River. A privately dredged channel leads from the entrance for about 0.4 mile to a mooring basin just below the State Route 35 fixed highway bridge, the head of navigation. In 1984, the reported midchannel controlling depths were 5½ feet in the river and 4 feet in the basin.

(143) There are several small-craft facilities on Porter River. Marine railways to 15 tons, lifts to 50 tons, marine supplies, storage facilities, and other services are available; hull and engine repairs can be made. The Danvers Yacht Club at the entrance and west side of the river has depths of 4½ to 7 feet reported alongside its floats; water and other services are available.

(144) The **harbormaster** for Danversport maintains an office on the west side of Porter River at the town landing immediately below the highway bridge; all moorings are under his control.

(145) **Chart 13276.—North River**, a tributary of Danvers River entering from southward just above the bridges, is nearly bare at low water in a narrow, unmarked channel which is seldom used. A boatyard with a marine railway that can haul out craft up to 40 feet in length for minor repairs or winter storage is on the west side of the river just below State Route 114 highway bridge at the head of navigation. Overhead power cables crossing the mouth of

North River have clearances of 75 feet, and where they cross Collins Cove they have a clearance of 50 feet. The towers are conspicuous from seaward.

(146) **Bass River** empties into the north side of Danvers River opposite the entrance to North River. A depth of about 6 feet can be carried to the Hall-Whitaker highway swing bridge, about 0.7 mile above the entrance, thence about 4 feet to the yacht club 0.3 mile above the bridge. The channel leads between flats bare at low water and is most easily followed at that stage. In December 1978, an unknown obstruction was reported on the east edge of the channel about 0.2 mile above the entrance. Buoys mark the channel to a point about 300 yards below the bridge. The bridge has a swing span with a width of 40 feet and a clearance of 5 feet. (See **117.1 through 117.59 and 117.588**, chapter 2, for drawbridge regulations.) A 24 hours' advance notice is required to open the hand-cranked swing span. Requests should be made to the Massachusetts Department of Public Works in Danvers; telephone, 617-774-3190. An overhead power cable on the south side of the bridge has a clearance of 48 feet.

(147) A **special anchorage** is about 300 yards northward of the bridge. (See **110.1, and 110.25(b)**, chapter 2, for limits and regulations.)

(148) A private yacht club is about 0.3 mile above the bridge, and a ramp is just above the bridge, both are on the east bank of the river. There are no services, except a service station near the ramp. The boatyard builds or hauls out for repairs or storage craft up to 35 feet in length. The yacht club is a private facility.

(149) **Salem Harbor** is about 1.5 miles long in a southwesterly direction. **Salem**, an industrial city, is on the western side of the harbor. The principal industries are leather, electronic products, and games manufacturing. The city has many points of historical interest, including museums devoted to maritime subjects. Waterborne commerce is principally in petroleum and seafood products.

(150) Salem Harbor is approached from the northward through a dredged section of Salem Channel. An obstruction, cleared to a depth of 27 feet and marked by a lighted buoy, is close to the westerly edge of the channel entrance.

(151) **Anchorage**.—A special anchorage is in the south and east parts of Salem Harbor and extends eastward along the south side of South Channel to Peaches Point. (See **110.1 and 110.25(c)**, chapter 2, for limits and regulations.) The harbor is sometimes used as a harbor of refuge, especially during the autumn. Good anchorage is available in what is known as the outer anchorage southward of the main channel and northward and eastward of Little Haste.

(152) **Pilotage, Salem**.—For Pilotage at Salem and vicinity see Pilotage, Gloucester, indexed as such, this chapter.

(153) On the western side of the dredged approach is Salem Neck. **Salem Willows Park**, the Salem Willows Yacht Club, and a 400-foot public pier are on the northeastern extremity of Salem Neck. Excursion and party fishing boats operate from the three landings in the summer. Rowboats can also be hired. Depths of 4 feet are reported alongside the yacht club floats; gasoline and water are available. Reported depths of 10 feet are at the head of the public pier and 3 to 5 feet at the floats on each side of it. There are an amusement park and restaurant at the Salem Willows Park.

(154) **Juniper Point**, the eastern extremity of the neck, has many summer homes.

(155) **Juniper Cove**, a shallow foul cove which is mostly dry at low water, lies between Salem Neck and **Winter Island**. A boat

and yacht yard with marine railways that can handle craft up to 50 feet in length or up to 27 tons for hull, engine, or electronic repairs or dry open storage is at the head of the cove. In summer, small craft moor in the entrance to the cove between **Abbott Rock**, marked by a daybeacon, and Juniper Point. The cove is open to easterly weather, but the holding ground in the entrance is reported to be good.

(156) A private light is shown from a white conical tower on the southeastern point of Winter Island. The hangars, buildings, and seaplane ramps of an inactive Coast Guard base on the southern half of Winter Island are conspicuous. The seaplane ramps should be given a wide berth, since numerous submerged pilings are nearby.

(157) **Great Aquavitae**, a shoal area on the east side of the dredged section of Salem Channel, is marked by a daybeacon.

(158) Conspicuous on Salem Neck are the oil tanks of the Salem Terminal and the five stacks of the powerplant adjacent to the north. The northernmost and southernmost stacks are lighted.

(159) A marina is about 300 yards southwestward of Salem Terminal Wharf. Depths of 5 to 10 feet are reported alongside the floats; water, electricity, ice, storage facilities, and hull and engine repairs are available.

(160) **Derby Wharf**, on the west side of Salem Harbor about 0.4 mile southwestward of Salem Terminal Wharf, is a stone jetty about 0.3 mile long, marked at its outer end by a private light. The wharf and the old customhouse on its shore end are now a national monument under the Department of the Interior.

(161) A lighted buoy marks the entrance to two dredged channels leading along the east and west sides of Derby Wharf, respectively. The northerly channel leads to an anchorage basin on the east side of the wharf. In January-February 1993, the channel had a controlling depth of 7 feet with 1 to 8 feet available in the basin except for shoaling to bare along the northern and north-eastern sides. A public float is midway along the wharf; moorings are available in the basin. The southerly channel, on the west side of the wharf, leads to South River.

(162) **South River**, a short estuary extending into the city of Salem, has its entrance through a dredged channel leading along the west side of Derby Wharf. In February-March 1987, the controlling depth was 5 feet (6 feet at midchannel) in the channel leading along the west side of the wharf and continuing westward to a point about 100 yards below the fixed bridge over South River.

(163) On the west side of South River, large industrial buildings and warehouses and a brick stack are conspicuous. In 1979, it was reported that 5 foot drafts could be carried as far as the public float landing and a marina on the south side of the Congress Street Bridge, about 0.2 mile above Derby Wharf. The fixed bridge has a 43-foot span with a vertical clearance of 7 feet. Gasoline, water, and most services are available at the floats of the marina on the north bank. It has been reported that navigation through the Congress Street Bridge is hazardous during periods of maximum flood and ebb.

(164) A channel south of Long Point and marked by private buoys, leads westward from the South River entrance channel to a yacht club in **Palmer Cove**.

(165) The southwestern part of Salem Harbor is shoal and at the head particularly foul, southward of Pickering Point.

(166) South of **Palmer Point**, a large yacht yard with marina has a marine railway, the largest in the area, that can haul out craft up to 100 feet in length. A privately dredged 8-foot channel, marked by piles, leads to an anchorage basin off the yard. Water,

open and covered winter storage, overnight berthage with electricity, and most services are available at the yard. The yard maintains guest moorings.

(167) (See the small-craft facilities tabulation on chart 13274 for additional services and supplies available in Salem Harbor.)

(168) **Marblehead Harbor**, 1 mile long and 700 yards wide, is formed on the east and south by Marblehead Neck and **Back Beach**, a narrow strip beach on the south side of the causeway and seawall connecting the south end of Marblehead Neck with the mainland. Marblehead Light marks the easterly point of the entrance. Marblehead Harbor is an excellent anchorage used mostly by yachts during the summer. The anchorage is reported uncomfortable for yachts when the wind is northeast.

(169) The depths in the harbor up to **Skinner Head** are from 21 to 30 feet, with the exception on the east side, northerly of **Boden Point**, where **Boden Rocks** are covered 9 feet.

(170) Southward of Skinner Head, the depths shoal gradually with 8 feet available to within about 300 yards of the head and east side. It is reported that this part of the harbor is extremely uncomfortable for small craft during a northeaster.

(171) A **special anchorage** occupies most of Marblehead Harbor. (See **110.1**, and **110.26**, chapter 2, for limits and regulations.)

(172) The harbor, often referred to as the "yachting capital of the world," is somewhat congested during the summer. The harbormaster reports that there are about 2,300 moorings in the harbor.

(173) The moorings are under the supervision and control of the **harbormaster**, who issues permits for them. The harbor is patrolled by a police boat, and a **speed limit** of 5 miles per hour is enforced. The harbormaster may be contacted through the local police department and may, on request, direct a stranger to a mooring or a quiet spot for anchoring.

(174) No directions are deemed necessary for entering. The chart should be the guide. All known dangers are charted, and most of them are marked. Some difficulty may be experienced, once in the harbor, in finding a mooring or good swinging room if the harbor is congested. In that case, the harbormaster may be of help.

(175) **Marblehead**, a combined business and residential community on the west side, and **Marblehead Neck**, all residential, on the east side of the harbor, are important summer resorts.

(176) There are numerous float landings on both sides of the harbor at which there are depths of 6 to 25 feet. Overnight berthing, as a rule, is not permitted at any of the service or yacht club floats.

(177) There are six yacht clubs on the harbor: Eastern, Corinthian, and Pleon on the east side; and Boston, Dolphin, and Marblehead along the west side. All have facilities to a varying degree, either private or available to visiting yachtsmen.

(178) There are many small-craft facilities in the harbor. (See the small-craft facilities tabulation on chart 13274 for services and supplies available.)

(179) Wood, steel or fiberglass sail or motor craft up to 65 feet in length can be built at Marblehead. There are two public float landings and two small-craft launching ramps usable at half tide or better.

(180) Lodging, restaurants, markets, hospital, and churches are in Marblehead; bus and taxi services are available.

(181) **Charts 13275, 13274.—Phillips Point**, 3.5 miles southwestward of Marblehead Light, is 50 feet high and rocky with woods and large homes along its shore. A rock ledge covered 12 feet is 600 yards eastward of Little Point, the eastern part of Phillips Point. A fishing net extends eastward from Little Point during the summer. A reef with bare heads extends 350 yards southward from Phillips Point. **Dread Ledge**, 500 yards southward of the point, uncovers 5 feet and is marked by a daybeacon.

(182) **Nahant Bay** is 2 miles wide between Phillips Point and Nahant. Temporary anchorage, exposed to easterly and southerly winds, can be had in the bay in 18 to 36 feet, but is seldom used. The usual anchorage is off Swampscott, northwestward of Lincoln House Point. Many small craft moor here in the summer. Several mooring buoys, used by local craft, are in the cove westward of the point, off **Fishermans Beach**. A 440-foot pier with 50 feet of floats at the end extends off the beach; there are depths of 5 feet at the floats, but no services. The Swampscott Yacht Club is at the shore end of the pier. A **harbormaster**, who maintains an office at the yacht club, supervises the moorings.

(183) There is a public small-boat ramp with parking space adjoining the pier. Water and guest moorings are available. Gasoline can be obtained in cans from a nearby service station. Ice, provisions, and marine supplies are available from the nearby markets and stores.

(184) Nahant Bay is mostly clear. **Lincoln House (Fishing) Point, Blaney Rock, and Red Rock** are rocky points on the northern side of Nahant Bay. A dangerous submerged rock, marked on its south side by a buoy, is about 125 yards south of Lincoln House Point. Two other rocks, covered 16 feet and 18 feet, are about 400 yards southward and about 700 yards south-southwestward of Lincoln House Point, respectively.

(185) The town of **Swampscott** is on the northern shore of Nahant Bay. A large blue standpipe and the school cupola are conspicuous. A church spire, lighted at night, on the shore drive at Red Rock, and an observatory, about 0.9 mile northwestward of Red Rock, are also prominent.

(186) **Long Beach** is a narrow strip of sand about 1 mile long in a southerly direction separating Nahant Bay from Lynn Harbor. **Little Nahant**, a high grassy head with many houses, is joined to Nahant by **Short Beach**, a strip of beach 0.4 mile long. The white buildings and signal tower of the former Coast Guard station on Short Beach are just southward of Little Nahant.

(187) **Egg Rock**, 60 feet high and bare, is on the southern side of the entrance to Nahant Bay. It is a bird sanctuary.

(188) **Nahant** is a high peninsula about 1.5 miles long with bluff seaward faces. The town of Nahant is connected to Lynn by a highway. Among the most prominent objects are four nearly identical concrete observation towers; two are on the outer end of the peninsula just north of **Pea Island**; one is about 0.4 mile to the northward; and the fourth is on the west side of the harbor. The top section of the southerly of the two towers just north of Pea Island is topped with a wind break painted red and reportedly is especially prominent. A former military installation, now used by Northeastern University as a marine research facility, is on **East Point**, the easternmost point of the peninsula. A 60-foot windmill on East Point is reported to be prominent.

(189) **Nahant Harbor** is the bight on the south side of Nahant. On entering between **Joe Beach Ledge**, awash and marked by a buoy, and **The Spindle (Bass Rock)**, awash and marked by a buoy, select temporary anchorage off the wharf in 18 to 24 feet, hard bottom. The town wharf on the east shore at the head has

about 6 feet alongside the float landing; a hard-surface launching ramp for small boats is on the north side of the shore end of the wharf. Water is available at the float. There is a sailing club on the wharf, and a **harbormaster** controls the moorings. The Boston pilot boats land and pick up pilots at this wharf and maintain a mooring off the wharf.

(190) **Shag Rocks** are bare rocks extending 300 yards southward from the southeast end of Nahant. A ledge, awash at lowest tides, extends 100 yards southward from the southernmost Shag Rock. A lighted buoy is south of the ledge.

(191) **Broad Sound**, about 4 miles wide between Nahant on the northeast and Deer Island on the southwest, forms the approach to Nahant and the city of Lynn at its north end, and the northern approach to Boston Harbor at its south end. It has depths of 18 to 48 feet in the entrance, but is shoal near the shores. A foul area with submerged rocks, some covered ½ foot, is offshore on the west side of the sound, about 0.9 mile east-northeast of the tower at Revere Beach. Pilings, awash and unmarked, about 300 yards northeastward of the foul area, are in 42°25'09"N., 70°57'48"W.

(192) **Lynn Harbor**, the northerly end of Broad Sound, is mostly sand and mudflats which largely bare at low water and through which a channel has been dredged to the city of Lynn, an industrial community of major importance. In 1979, it had little waterborne commerce. Of the many diversified industries, a large General Electric plant, which manufactures airplane engines and electronic products, is the largest employer. In 1979, several of the wharves were being used as marinas, and the remainder were not in general use or were in ruins or disrepair.

(193) **Prominent features.**—Landmarks in approaching Lynn Harbor are the standpipe on Winthrop Head, and two apartment houses on Winthrop Highlands, the observation towers at Nahant, a white tank at the head of the harbor, and the radio towers of station WLYN on the Saugus River and station WROL on the Pines River.

(194) **Channels.**—A dredged channel leads from Broad Sound, at a point about 0.8 mile westward of Bass Point, to a turning basin at the head of Lynn Harbor. A privately maintained subsidiary channel leads from the basin in a southwesterly direction to the wharf of a powerplant. In 1997, the midchannel controlling depth was 17 feet in the dredged entrance channel to the turning basin, thence depths of 14 to 16 feet were available in the basin. In 1979-81, 11 feet was reported in the subsidiary channel to the powerplant wharf except for shoaling to 9 feet along the north edge near the channel entrance.

(195) **Black Rock Channel**, a branch channel leading along the western side of Nahant, is unmarked and suitable only for small craft. Sand flats, bare or nearly bare at low water, are on each side. In 1979, it was reported that the channel had shoaled to 5 feet, but that it was still being used by lobstermen and small craft.

(196) **Western Channel**, westward of the main channel to Lynn Harbor, leads from Broad Sound to the General Edwards Bridge and the **Saugus River**. **Pines River** is entered from Saugus River just westward of the bridge. In October-November 2000, the controlling depth in Western Channel was 7.6 feet (7.8 feet at midchannel) to the General Edwards Bridge; thence in 1970, 7 feet to the Fox Hill Bridge. From Fox Hill Bridge, a depth of about 4 feet could be carried in Saugus River to a turning basin off the Saugus River Yacht Club, about 0.75 mile upstream. In 1982, the Pines River had depths of 1 to 3 feet to a point about 1 mile above the General Edwards Bridge; local knowledge is advised.

(197) Western Channel is marked by buoys to just below the General Edwards Bridge. Dangerous rocks awash, on the northern side of the channel, extend about 200 yards south-southeastward from a point on the north shore about 200 yards below the General Edwards Bridge; the southern extremity of the rocks is marked by a buoy. Above the bridge, the channel is unmarked and local knowledge is advised.

(198) **Anchorage.**—Small craft moor off the marina and boatyard north of Bass Point, in the turning basin at the head of Lynn Harbor, and in the special anchorage eastward of it. (See **110.1 and 110.30(a)**, chapter 2, for limits and regulations.) In Saugus River, some moor off the yacht club close eastward of General Edwards Bridge. Above the bridge they moor on the west side of the channel and above Fox Hill Bridge in the channel wherever space permits. In Pines River they moor in the narrow channel. Moorings are under control and supervision of the harbormaster, who can be contacted through the local police department. Depths in the anchorages are off Bass Point from 5 to 30 feet; at the head of Lynn Harbor from 7 to 17 feet; and in Saugus and Pines Rivers from 3 to 9 feet.

(199) Some local knowledge or assistance will be needed in finding swinging room or a vacant mooring off the yacht clubs at the head of Lynn Harbor, as this area is usually heavily congested with small craft.

(200) Many small craft moor on the east side of the harbor near Bass Point, and the boatyard there maintains about 150 moorings, with usually a few vacant.

(201) **Dangers.**—The principal dangers in the approach to Lynn Harbor are **Flip Rock**, covered 12 feet and marked by a gong buoy, 0.6 mile south of The Spindle; **Nahant Rock**, covered 18 feet and marked by a buoy, 0.8 mile southwest of Bass Point; and two unmarked shoals, covered 14 and 16 feet, about 0.7 mile northward of Nahant Rock.

(202) **Bridges.**—No bridges cross the main channel to Lynn. Three bridges cross Saugus River between the mouth and a fixed highway bridge at East Saugus, about 2.5 miles above the mouth. The first, General Edwards (State Route 1A) highway bridge, has a bascule span with a clearance of 27 feet. Overhead power cables about 0.2 mile westward of the bridge have a clearance of 85 feet.

(203) The second, the Boston and Maine Railroad bridge, has a bascule span with a clearance of 7 feet; and the third, Fox Hill highway bridge at Western Avenue, has a 40-foot bascule span with a clearance of 6 feet. The fixed highway bridge at East Saugus has a clearance of about 4 feet, but a water main crossing under the bridge obstructs the channel at low water and prevents navigation through it. Small craft are reported to go above the bridge for some distance at high water. (See **117.1 through 117.49 and 117.618**, chapter 2, for drawbridge regulations.)

(204) The drawspan of a former narrow gage railroad bridge, just above General Edwards Bridge, has been removed to the approach piers for a channel width of 200 feet. General Edwards Bridge and the Boston and Maine Railroad bridge monitor VHF-FM channel 16 and work on channel 13.

(205) **Tides and currents.**—The mean range of tide is 9.2 feet at Lynn. The average velocity at strength of the tidal current at Lynn Harbor entrance is 0.5 knot.

(206) **Harbormasters.**—There is a harbormaster at Lynn and one at Saugus. The former can be contacted through the Volunteer Yacht Club at Lynn; the latter through the Saugus Police Department. They supervise and control the moorings.

(207) **Wharves.**—In 1979, only the wharf of the General Electric plant on Saugus River was in periodic use. Depths of 9 feet were reported alongside. A development plan for the greater use of the Lynn waterfront was being implemented in 1979.

(208) **Supplies and repairs.**—There are no bunkering facilities, drydocks, or major repair facilities for large vessels at Lynn. The nearest drydocks or repair facilities for large vessels are at Boston. Marine supplies, provisions, and machine shops are available in the city.

(209) **Small-craft facilities.**—There are several marinas, boatyards, and private yacht clubs at Lynn and on the Saugus and Pines Rivers. Most of these facilities have gasoline, marine supplies, storage and berthing facilities, water, ice, and launching ramps. The facilities on Pines River can make hull and engine repairs; an 18-ton mobile hoist and a 50-foot marine railway are available.

(210) The yacht clubs include the Bass Point Boat Club, on Bass Point; the Lynn and Volunteer Yacht Clubs at the head of the harbor; the Point of Pines Yacht Club, on the south side of Saugus River, just eastward of the General Edwards Bridge; the Fox Hill Yacht Club, near the Fox Hill Bridge; and the Saugus River Yacht Club, about 0.7 mile above the Fox Hill Bridge. The clubs all have berthing facilities, guest moorings, and other services available to members and guests.

(211) Lynn has railroad and bus services, a hospital, hotels, banks, churches, and many other conveniences.

(212) **Revere** is a city and summer beach resort on the west side of Broad Sound. At the southern end of **Revere Beach**, a breakwater extends out from the shore on **Cherry Island Bar**, forming an anchorage for small craft in 3 to 4 feet of water, but it is exposed. Parts of the breakwater are covered at high water.

(213) Westward of the breakwater are the ruins of a 600-foot-long pier. A shorter pier to the eastward of the ruins dries at low water.

(214) **Winthrop Highlands**, about 0.8 mile southward of Cherry Island Bar, has two conspicuous apartment houses just southward. The structures are about 100 feet high.